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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,839	09/22/2003	Chi-Tung Chang	P02995-F006	8285
7590	01/23/2006			
Chi-Tung Chang Sec. 4, 7F., No. 213, Civic Boulevard. Taipei, 105 TAIWAN			EXAMINER MOORE, PATRICK M	
			ART-UNIT 2188	PAPER NUMBER
DATE MAILED: 01/23/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/670,839	Applicant(s) CHANG ET AL.	
	Examiner Patrick M. Moore	Art Unit 2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-42 have been examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al (US PG-Pub # 2005/0083741), herein referred to as Chang '741.

- a. As per Claim 1, Chang '741 discloses a portable data storage device adapted to plug in an electronic apparatus for reading or writing data therefrom or thereinto, comprising: an interface unit for plugging in a processing unit of said electronic apparatus **[Figure 1, # 120 & ¶ 0017]**; a flash memory into and from which data can be written and read **[¶ 0018]**, and being segmented into at least two segments particularly set as a CD-ROM segment **[¶ 0019 & 0033]** and a fixed type hard drive segment **[¶ 0032]**; and a control unit located between and coupled with said interface unit and said flash memory to control input and output of data into and from said flash memory **[Figure 1, # 120 & ¶ 0017]**; when said interface unit is plugged in said processing unit, said control unit being adapted to identify an operating system under which said processing unit of said

electronic apparatus operates and to hide one of said at least two segments of said flash memory that has a disk type not applicable to said operating system used by said processing unit, so that said processing unit may detect only the other one of said at least two segments that has an applicable disk type **[Figure 3, # 350, 360, 370, 380, 390 & ¶ 0030-0033]**.

b. As per Claim 2, Chang '741 further discloses the portable data storage device as claimed in claim 1, wherein said CD-ROM segment is hidden, so that only a disk type that is applicable to Windows 98/ME is used **[“Yes” branch of Figure 3, # 360]**.

c. As per Claim 3, Chang '741 further discloses the portable data storage device as claimed in claim 1, wherein said CD-ROM segment includes all source codes for a virtual CD-ROM **[¶ 0033]**.

d. As per Claim 4, Chang '741 further discloses the portable data storage device as claimed in claim 2, wherein said CD-ROM segment includes all source codes for a virtual CD-ROM **[¶ 0033]**.

e. As per Claim 5, Chang '741 further discloses the portable data storage device as claimed in claim 3, wherein said CD-ROM segment has an internal file stored therein and internally includes a start program **[¶ 0018 & 0019]**, and wherein said processing unit may detect said virtual CD-ROM in said CD-ROM segment via said control unit to locate a designated start program and automatically execute the play of said internal file **[¶ 0033]**. Chang '741 teaches automatic execution to be functionally known as “AutoRun”.

- f. As per Claim 6, Chang '741 further discloses the portable data storage device as claimed in claim 4, wherein said CD-ROM segment has an internal file stored therein and internally includes a start program [¶ 0018-0019], and wherein said processing unit may detect said virtual CD-ROM in said CD-ROM segment via said control unit to locate a designated start program and automatically execute the play of said internal file [¶ 0033].
- g. As per Claim 7, Chang '741 further discloses the portable data storage device as claimed in claim 5, wherein said CD-ROM segment is set as a read-only segment [¶ 0046]. Chang '741 teaches read-only functionality to be known as "copy protection".
- h. As per Claim 8, Chang '741 further discloses the portable data storage device as claimed in claim 6, wherein said CD-ROM segment is set as a read-only segment [¶ 0046].
- i. As per Claim 9, Chang '741 further discloses the portable data storage device as claimed in claim 1, wherein said fixed type hard drive segment is hidden, so that only a disk type that is applicable to Windows 2000/XP is used [**"No" branch of Figure 3, # 360**].
- j. As per Claim 10, Chang '741 further discloses the portable data storage device as claimed in claim 1, wherein said fixed type hard drive segment has an internal file stored therein and internally includes a start program, and wherein said processing unit may be triggered via said control unit to locate a designated start program and automatically execute the play of said internal file [¶ 0018].

- k. As per Claim 11, Chang '741 further discloses the portable data storage device as claimed in claim 9, wherein said fixed type hard drive segment has an internal file stored therein and internally includes a start program, and wherein said processing unit may be triggered via said control unit to locate a designated start program and automatically execute the play of said internal file **[¶ 0018]**.
- l. As per Claim 12, Chang '741 further discloses the portable data storage device as claimed in claim 10, wherein said fixed type hard drive segment is set as a read-only segment **[¶ 0046]**.
- m. As per Claim 13, Chang '741 further discloses the portable data storage device as claimed in claim 11, wherein said fixed type hard drive segment is set as a read-only segment **[¶ 0046]**.
- n. As per Claim 14, Chang '741 further discloses the portable data storage device as claimed in claim 1, wherein said interface unit comprises a USB plug for plugging in a corresponding USB socket on said electronic apparatus **[Figure 1, # 140 & ¶ 0017]**.
- o. As per Claim 15, Chang '741 further discloses the portable data storage device as claimed in claim 1, wherein said control unit comprises a micro controller **[Figure 1, # 120 & ¶ 0017]**.
- p. As per Claim 16, Chang '741 further discloses the portable data storage device as claimed in claim 15, wherein said micro controller includes a read-only memory for recording a control program **[¶ 0006 & 0017]**. Examiner understands

“embedded firmware” to function as the claimed control program, as disclosed by Chang '741.

q. As per Claim 17, Chang '741 discloses a portable data storage device adapted to plug in an electronic apparatus for reading or writing data therefrom or thereinto, comprising: an interface unit for plugging in a processing unit of said electronic apparatus **[Figure 1, # 120 & ¶ 0017]**; a flash memory into and from which data can be written and read **[¶ 0018]**, and being segmented into at least three segments, namely, first, second, and third segments; said first and said second segment being preset as a CD-ROM segment **[¶ 0019 & 0033]** and a fixed type hard drive segment **[¶ 0032]**, respectively, and said third segment being set as a removable type disk segment **[¶ 0031 & 0032]**; and a control unit located between and coupled with said interface unit and said flash memory to control input and output of data into and from said flash memory **[Figure 1, # 120 & ¶ 0017]**; when said interface unit is plugged in said processing unit, said control unit being adapted to identify an operating system under which said processing unit of said electronic apparatus operates and to hide one of said first and second segments of said flash memory that has a disk type not applicable to said operating system used by said processing unit, so that said processing unit may detect only the other one of said first or the second segment that has an applicable disk type **[Figure 3, # 350, 360, 370, 380, 390 & ¶ 0030-0033]**.

r. As per Claim 18, Chang '741 further discloses the portable data storage device as claimed in claim 17, wherein said CD-ROM segment is hidden, so that

only a disk type that is applicable to Windows 98/ME is used [**“Yes” branch of Figure 3, # 360**].

s. As per Claim 19, Chang '741 further discloses the portable data storage device as claimed in claim 17, wherein said CD-ROM segment includes all source codes for a virtual CD-ROM [**¶ 0033**].

t. As per Claim 20, Chang '741 further discloses the portable data storage device as claimed in claim 18, wherein said CD-ROM segment includes all source codes for a virtual CD-ROM [**¶ 0033**].

u. As per Claim 21, Chang '741 further discloses the portable data storage device as claimed in claim 19, wherein said CD-ROM segment has an internal file stored therein and internally includes a start program [**¶ 0018 & 0019**], and wherein said processing unit may detect said virtual CD-ROM in said CD-ROM segment via said control unit to locate a designated start program and automatically execute the play of said internal file [**¶ 0033**].

v. As per Claim 22, Chang '741 further discloses the portable data storage device as claimed in claim 20, wherein said CD-ROM segment has an internal file stored therein and internally includes a start program [**¶ 0018 & 0019**], and wherein said processing unit may detect said virtual CD-ROM in said CD-ROM segment via said control unit to locate a designated start program and automatically execute the play of said internal file [**¶ 0033**].

w. As per Claim 23, Chang '741 further discloses the portable data storage device as claimed in claim 21, wherein said CD-ROM segment is set as a read-only segment **[¶ 0046]**.

x. As per Claim 24, Chang '741 further discloses the portable data storage device as claimed in claim 22, wherein said CD-ROM segment is set as a read-only segment **[¶ 0046]**.

y. As per Claim 25, Chang '741 further discloses the portable data storage device as claimed in claim 17, wherein said fixed type hard drive segment is hidden, so that only a disk type that is applicable to Windows 2000/XP is used **["No" branch of Figure 3, # 360]**.

z. As per Claim 26, Chang '741 further discloses the portable data storage device as claimed in claim 17, wherein said fixed type hard drive segment has an internal file stored therein and internally includes a start program, and wherein said processing unit may be triggered via said control unit to locate a designated start program and automatically execute the play of said internal file **[¶ 0018]**.

aa. As per Claim 27, Chang '741 further discloses the portable data storage device as claimed in claim 25, wherein said fixed type hard drive segment has an internal file stored therein and internally includes a start program, and wherein said processing unit may be triggered via said control unit to locate a designated start program and automatically execute the play of said internal file **[¶ 0018]**.

bb. As per Claim 28, Chang '741 further discloses the portable data storage device as claimed in claim 26, wherein said fixed type hard drive segment is set as a read-only segment [¶ 0046].

cc. As per Claim 29, Chang '741 further discloses the portable data storage device as claimed in claim 27, wherein said fixed type hard drive segment is set as a read-only segment [¶ 0046].

dd. As per Claim 30, Chang '741 further discloses the portable data storage device as claimed in claim 17, wherein said interface unit comprises a USB plug for plugging in a corresponding USB socket on said electronic apparatus [Figure 1, # 140 & ¶ 0017].

ee. As per Claim 31, Chang '741 further discloses the portable data storage device as claimed in claim 17, wherein said control unit comprises a micro controller [Figure 1, # 120 & ¶ 0017].

ff. As per Claim 32, Chang '741 further discloses the portable data storage device as claimed in claim 31, wherein said micro controller includes a read-only memory for recording a control program [¶ 0006 & 0017].

gg. As per Claim 33, Chang '741 further discloses a method of dynamically setting a disk type of a portable data storage device claimed in claim 1, comprising the steps of: plugging an interface unit of said portable data storage device in a processing unit of an electronic apparatus, so that a control unit of said portable data storage device detects an operating system under which said processing unit of said electronic apparatus operates [Figure 3, # 310, 320 & ¶

0024]; and hiding a segment on a flash memory of said portable data storage device that has a disk type not applicable to said operating system detected by said control unit, so that said processing unit may detect only another segment on said flash memory that has an applicable disk type **[Figure 3, # 350, 360 , 370 , 380 , 390 & ¶ 0030 - 0033]**.

hh. As per Claim 34, Chang '741 further discloses the method as claimed in claim 33, wherein a CD-ROM segment on said flash memory is hidden when said detected operating system is Windows 98/ME, so that said processing unit may detect only said another segment that is a fixed type hard drive segment having the applicable disk type **["No" branch of Figure 3, # 360]**.

ii. As per Claim 35, Chang '741 further discloses the method as claimed in claim 33, wherein a fixed type hard drive segment on said flash memory is hidden when said detected operating system is Windows 2000/XP, so that said processing unit may detect only said another segment that is a CD-ROM segment having the applicable disk type **["Yes" branch of Figure 3, # 360]**.

jj. As per Claim 36, Chang '741 further discloses the method as claimed in claim 33, further comprising a step of enabling a special functional program internally built in said flash memory **[¶ 0018]**.

kk. As per Claim 37, Chang '741 further discloses the method as claimed in claim 36, wherein said special functional program comprises a start program for executing an internal file **[¶ 0018]**.

II. As per Claim 38, Chang '741 further discloses a method of dynamically setting a disk type of a portable data storage device claimed in claim 17, comprising the steps of: plugging an interface unit of said portable data storage device in a processing unit of an electronic apparatus, so that a control unit of said portable data storage device detects an operating system under which said processing unit of said electronic apparatus operates **[Figure 3, # 310, 320 & ¶ 0024]**; and hiding one of a first and a second segment on a flash memory of said portable data storage device that has a disk type not applicable to said operating system detected by said control unit, so that said processing unit may detect only another one of said first or said second segment on said flash memory that has an applicable disk type **[Figure 3, # 350, 360 , 370 , 380 , 390 & ¶ 0030 - 0033]**.

mm. As per Claim 39, Chang '741 further discloses the method as claimed in claim 38, wherein a CD-ROM segment on said flash memory is hidden when said detected operating system is Windows 98/ME, so that said processing unit may detect only said another segment that is a fixed type hard drive segment having the applicable disk type **["No" branch of Figure 3, # 360]**.

nn. As per Claim 40, Chang '741 further discloses the method as claimed in claim 38, wherein a fixed type hard drive segment on said flash memory is hidden when said detected operating system is Windows 2000/XP, so that said processing unit may detect only said another segment that is a CD-ROM segment having the applicable disk type **["Yes" branch of Figure 3, # 360]**.

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oo. As per Claim 41, Chang '741 further discloses the method as claimed in claim 38, further comprising a step of enabling a special functional program internally built in said flash memory [¶ 0018].

pp. As per Claim 42, Chang '741 further discloses the method as claimed in claim 41, wherein said special functional program comprises a start program for executing an internal file [¶ 0018].

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Koh (US Patent # 6,757,783 and US PG-Pub # 2003/0167376) teaches a USB Flash Drive used as a removable storage medium, referred to as using the UFI protocol. Oishi et al. (US PG-Pub # 2003/0225971) teaches a segmented, read-only USB storage device. Paley et al. (US PG-Pub # 2004/0193744) teaches a plurality of virtual devices available on a USB keychain storage device. Chen et al. (US PG-Pub # 2005/0120146) teaches a bootable USB flash device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick M. Moore whose telephone number is (571) 272-1239. The examiner can normally be reached on M-F 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabahn can be reached on (571) 272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMM

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1/19/06

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